employed for this type of problem. Finally, keratometry measures central corneal curvature in orthogonal meridians and assumes the whole cornea adopts this regular spherocylinder. All incisions have a paracentral flattening effect which is initially tempered by sutures. Removing them hastens the swing towards against-the-wound astigmatism which the coupling effect compounds. We have presented work that establishes how incisions have differing effects on vectored cylindrical outcome depending on their orientation.[4] This is why selective suture removal is important. Removal of the closest aligned suture to the steep meridian will not necessarily reduce the magnitude of that cylinder but rather swing the axis of the vector in the opposite direction.

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3. Holladay JT, Cravy TV, Koch DD. Calculating the surgically induced refractive change following ocular surgery. J Cataract Refract Surg 1992;18:429–43.
4. Horgan SE, Stevens JD. Astigmatic effect of off-axis and on-axis sutureless incisions for cataract surgery. Proceedings papers, XIV Congress of European Society of Cataract and Refractive Surgeons, Gothenburg, October 1996.

Sir,

We thank Mr Horgan for his comments on our recent publication.[1] Several points are made in his letter, which are dealt with individually.

1. Automated keratometry was performed using the Canon IOL estimator, and this instrument was programmed to calculate the mean of five separate readings.
2. Sutures that appeared tight were removed. Twenty-two patients had one suture removed, 10 patients had two sutures removed and 2 patients had three sutures removed.
3. The topical corticosteroid–antibiotic preparation had been discontinued for at least 2 weeks prior to suture removal and all patients received a 5-day course of prophylactic chloramphenicol drops following suture removal.
4. We did not specifically design our study to address the issue of timing of suture removal but we found no statistically significant effect on the rate of astigmatic decay (see Results, last paragraph).
5. The mean change in cylindrical power and axis are clearly tabulated and show that the mean cylindrical power does indeed decrease the most in the first 5 minutes following suture removal. We also state clearly in the results that 'the greater the initial astigmatism, the greater the change induced by suture removal' – not in the first 5 minutes but total change.
6. The mean change in astigmatism at 2 weeks is 1.29 dioptres; this value is clearly tabulated. The reason there is an upward trend in Fig. 1 is that the magnitude of change in astigmatism between 15 and 30 minutes is less than the change seen between 30 minutes and 2 weeks. Again this is clearly tabulated and demonstrated in Fig. 1.
7. We did not use vector analysis because the main aim of our paper was to assess in a simple clinical manner whether the resulting astigmatism 30 minutes following suture removal differs significantly from the residual astigmatism 2 weeks later. The most important readings, therefore, were those comparing astigmatic change between 30 minutes and 2 weeks after suture removal. The mean change (11.77) and range of change in axis (10.84–12.76) shown in the table for this time period of observation would not have influenced the results greatly if vector analysis had been performed. Secondly, it was felt that although the role of vector analysis in small incision and refractive surgery has been well defined, this is not the case in large sutured incisions.

Our paper dealt with what was at the time a common surgical problem in a clinical and practical way. It is, we believe, possible to approximately estimate the residual astigmatism 2 weeks following suture removal from the keratometry findings 30 minutes after suture removal.

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Reference

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Sir,

I am grateful to Martin Leyland[1] for highlighting my concern over the use of CS aerosols by the police.[2,3] I have personally seen three police officers who developed significant ocular morbidity secondary to acquired dry eye states following a 'demonstration' of the CS aerosols – although these are more appropriately described as 'squirt cans' because they emit a pressurised stream of the solution of CS in a similar manner to windscreen de-icer cans, and not the mist